1. An acoustic transducer that converts a mechanical motion into acoustical energy, said acoustic transducer comprising:

a diaphragm that is curved;

at least one support on at least one portion of said diaphragm; and

at least one actuator operatively coupled to said diaphragm and spaced from said support, said actuator configured to move such that movement of said actuator produces corresponding movement of said diaphragm, said diaphragm movement being amplified with respect to said actuator movement.

2. The acoustic transducer of claim 1 wherein said diaphragm is made of a sheet of optically clear material.

3. The acoustic transducer of claim 1 wherein said actuator is operatively coupled to said diaphragm to partition said diaphragm into two sections, each containing an edge, and wherein said support includes supports fixed at said edge of said diaphragms distal from said actuator.

4. The acoustic transducer of claim 3 wherein said curved diaphragm comprises one section that is convex and another section that is concave.

5. The acoustic transducer of claim 1 wherein said diaphragm is partitioned into two diaphragms with an edge thereon, and said actuator includes a pair of piezoelectric actuators that are each operatively coupled to said edge of said diaphragms to form two diaphragm sections.

6. The acoustic transducer of claim 1 wherein said at least one actuator is characterized by a high force and short linear travel.

7. The acoustic transducer of claim 1 wherein said curvature is generally parabolic.

8. The acoustic transducer of claim 1 further comprising a seal at at least a portion of the periphery of said diaphragm to assist in maintaining the acoustic pressure gradient across said transducer.

9. The acoustic transducer of claim 1 wherein said at least one actuator is a piezo actuator.

10. The acoustic transducer of claim 1 wherein said actuator is a piezo bimorph drive.

11. The acoustic transducer of claim 1 wherein said piezoelectric drive is a single layer piezo actuator.

12. The acoustic transducer of claim 1 wherein said support overlies a video screen display and said diaphragm is spaced from said screen display.

13. The acoustic transducer of claim 12 wherein said actuator is a piezoelectric drive and said diaphragm is formed of an optically clear material.

14. The acoustic transducer of claim 12 wherein said diaphragm is fixed along a line, and said at least one actuator includes a plurality of actuators that are each operatively coupled to said diaphragm to form a plurality of diaphragm sections.

15. The acoustic transducer of claim 1 further comprising an electronic drive circuit operatively connected to said actuator.

16. The acoustic transducer of claim 15 wherein said drive circuit comprises an active filter and an amplifier.

17. The acoustic transducer of claim 15 wherein said drive circuit further comprises a step-up transformer and a resistor connected in series with said transformer

to control high frequency response.

18. The acoustic transducer of claim 15 wherein said drive circuit drives said actuator to control operation at a main resonance in the transducer output.

19. A speaker for use over a display screen, said speaker comprising:

an optically clear diaphragm;

at least one support on at least one portion of said optically clear diaphragm; and

at least one actuator operatively coupled to said optically clear diaphragm and spaced from said support such that movement of said actuator produces movement of said diaphragm, said diaphragm movement being amplified with respect to said actuator travel.

20. The speaker of claim 19 wherein said diaphragm is partitioned into a plurality of diaphragms each fixed along a line, and said actuator includes a plurality of actuators that are each operatively coupled to one edge of said diaphragms to form a plurality of diaphragm sections.